

Please replace the paragraph beginning at page 15, line 2, the Abstract, with the following rewritten paragraph:

An electronic price label (ESL) system with communication error correction is described.

In one aspect, the ESL system automatically detects ESL communication errors which may result in incorrect data in the ESL's registers, and then automatically takes corrective action to update the ESL's memory with the correct data. In one aspect, the host computer transmits a register update message to an ESL. If a negative acknowledgment message or no response is received, then the host computer may resend resends the register update message, or take takes other such appropriate corrective action. If the host computer receives a positive acknowledgement message, the host computer then automatically transmits one or more messages to the ESL to verify the contents of the ESL's registers to ensure that a positive acknowledgement was actually transmitted.

After the paragraph beginning at page 9, line 9 and ending at page 10, line 2, please insert the following paragraph:

At optional step 314, steps 302 through 312 are repeated a plurality of times. At optional step 316, statistical data is tabulated of the number of times a negative acknowledgement or no response was received. At optional step 318, if the number exceeds a threshold, an error indication is provided.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Please amend claims 1-4, 7, 8, 12-14 and 16 as follows:

1. (currently amended) A method of automatically detecting and correcting communication errors which result in incorrect storage of data in an electronic shelf label's (ESL's) registers, the method comprising the steps of:
 - (a) transmitting a initial message from a host computer to the ESL ~~by a host computer~~;
 - (b) waiting for a response to the initial message;
 - (c) if the response is a negative acknowledgement or no response is received by the host computer, retransmitting the initial message;
 - (d) if the response ~~appears to be~~ is interpreted by the host computer as a positive acknowledgement, transmitting a verification message to verify the contents of the ESL's registers;
 - (e) waiting for a response to the verification message; and
 - (f) if the response to the verification message ~~is positive acknowledgement~~ indicates that the contents of the ESL's registers match the expected contents as maintained by the host computer, logging the initial message as successfully received.
2. (currently amended) The method of claim 1 further comprising the step of:
 - (g) if the response to the verification message is a negative acknowledgement or no response is received by the host computer, retransmitting the initial message.
3. (currently amended) The method of claim 1 further comprising the step of:

(h) if the response to the retransmitted initial message is a negative acknowledgement or no response is received by the host computer, providing an indication of a communication problem.

4. (currently amended) The method of claim 1 wherein the initial message is a command to update at least one of the ESL's registers.

5. (original) The method of claim 1 wherein the verification message is a data bedcheck message.

6. (original) The method of claim 1 wherein the step of transmitting a verification message immediately follows the receipt of the positive acknowledgement.

7. (currently amended) An electronic shelf label (ESL) system comprising:
an ESL for displaying information relating to an item associated with the ESL, the ESL including a plurality of registers for storing information data, the data including information to be displayed by the ESL and parameters used by the ESL to control presentation and controlling the content and formatting of the information displayed; and

a host computer system transmitting a an initial message to the ESL, waiting for a response to the message, retransmitting the initial message if the response is a negative acknowledgement or no response is received, and transmitting a verification message to verify the contents of the ESL's registers if the response appears to be to the initial message is interpreted by the host computer as a positive acknowledgement, the host computer being operative to evaluate a response to the verification message to determine if the response indicates

that the contents of the ESL's registers match the expected contents as maintained by the host computer.

8. (currently amended) The system of claim 7 wherein the host computer waits for a response to the verification message, and if the response to the verification message is a positive acknowledgement, logging logs the initial message as successfully received.

9. (original) The system of claim 7 wherein the message is a command to update at least one of the ESL's registers.

10. (original) The system of claim 7 wherein the verification message is a data bedcheck message.

11. (original) The system of claim 7 wherein the step of transmitting a verification message immediately follows the receipt of the positive acknowledgement.

12. (currently amended) A method of automatically detecting and correcting communication errors which result in incorrect storage of data by an electronic shelf label's (ESL's) registers ~~storing incorrect data~~, the method comprising the steps of:

- (a) transmitting a an initial message from a host computer to an ESL, the initial message containing data to be stored in one or more registers of the ESL ~~by a host computer~~;
- (b) waiting for a response to the initial message;
- (c) if the response is a negative acknowledgement that the data was not correctly stored or no response is received by the host computer, retransmitting the initial message;

(d) if the response ~~appears to be~~ is interpreted by the host computer as a positive acknowledgement that the initial message was received and the data correctly stored, transmitting a verification message to verify the contents of the ESL's registers;

(e) waiting for a response to the verification message; and

(f) if the response to the verification message ~~is positive acknowledgement verifying that the ESL's registers contained the expected data~~ indicates that the contents of the ESL's registers match the expected contents as maintained by the host computer, logging the initial message as successfully received.

13. (currently amended) The method of claim 12 further comprising the step of:

(g) if the response to the verification message is a negative acknowledgement or no response is received by the host computer, retransmitting the initial message.

14. (currently amended) The method of claim 13 further comprising the step of:

(h) if the response to the retransmitted initial message is a negative acknowledgement or no response is received by the host computer, providing an indication of a communication problem.

15. (original) The method of claim 12 wherein the step of transmitting a verification message immediately follows the receipt of the positive acknowledgement.

16. (currently amended) The method of claim 13 wherein steps (a) through (g) are repeated a plurality of times and further comprising the step of:

tabulating statistical data of the number of times the response was a negative acknowledgement or no response was received; and

Appl. No. 09/992,240
Amdt. dated August 25, 2004
Reply to Office Action of April 22, 2004

providing an error indication ~~of if~~ the number exceeds a threshold.